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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

18 JUN 1962

IRONBARK

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : Table of Contents and Chapter VIII of SECRET Soviet Manual on Atomic Weapons and Anti-atomic Protection

1. Enclosed is a verbatim translation of the Table of Contents and Chapter VIII of a Soviet SECRET document titled "A Guide to the Combat Characteristics of Atomic Weapons and to the Means of Anti-atomic Protection". It was published in 1957 by the Ministry of Defense, USSR.

2. For convenience of reference by USIB agencies, the codeword IRONBARK has been assigned to this series of TOP SECRET CSDB reports containing documentary Soviet material. The word IRONBARK is classified CONFIDENTIAL and is to be used only among persons authorized to read and handle this material.

3. In the interests of protecting our source, IRONBARK should be handled on a need-to-know basis within your office. Requests for extra copies of this report or for utilization of any part of this document in any other form should be addressed to the originating office.

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Richard Helms
Deputy Director (Plans)

Enclosure

CSDB-3/650,395

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Original: The Director of Central Intelligence

cc: The Director of Intelligence and Research,
Department of State

The Director, Defense Intelligence Agency

The Director for Intelligence,
The Joint Staff

The Assistant Chief of Staff for Intelligence,
Department of the Army

The Director of Naval Intelligence
Department of the Navy

The Assistant Chief of Staff, Intelligence
U. S. Air Force

The Director, National Security Agency

Director, Division of Intelligence
Atomic Energy Commission

National Indications Center

Chairman, Guided Missiles and Astronautics
Intelligence Committee

Deputy Director for Research

Deputy Director for Intelligence

Assistant Director for National Estimates

Assistant Director for Current Intelligence

Assistant Director for Research and Reports

Assistant Director for Scientific Intelligence

Director, National Photographic Interpretation Center

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IRONBARK

CSDB-3/650,395

COUNTRY : USSR

SUBJECT : Soviet Manual on Atomic Weapons and Antiatomic Protection (Table of Contents and Chapter VIII)

DATE OF INFO : 1957

APPRAISAL OF CONTENT : Documentary

SOURCE : A reliable source (B).

Following is a verbatim translation of the Table of Contents and Chapter VIII of a Soviet SECRET document titled "A Guide to the Combat Characteristics of Atomic Weapons and to the Means of Antiatomic Protection." This manual was published in 1957 by the USSR Ministry of Defense as a replacement for a similar 1954 manual (CSDB- 35586), and is referenced in the Information Collection of the Artillery (cf. CSDB-3/649,649). It had not been superseded as of late 1961. A similar, more general document was also published by the 6th Directorate of the Ministry of Defense in 1959 (CSDB-3/649,686). To expedite dissemination, each chapter of this manual will be published separately as it becomes available and is translated.

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CSDB-3/650,395

MINISTRY OF DEFENSE OF THE USSR

SECRET

Copy No. ____

A GUIDE TO THE COMBAT CHARACTERISTICS OF ATOMIC WEAPONS AND TO THE MEANS OF ANTI-ATOMIC PROTECTION

Military Publishing House

Ministry of Defense of the USSR

Moscow -- 1957

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The Guide to the Military Characteristics of Atomic Weapons and to the Means of Anti-Atomic Protection represents a revised and enlarged edition of the Short Guide, which was published in 1954. Contained herein are data on the destructive factors of an atomic burst and on the means of anti-atomic protection, and also some basic facts of atomic physics, which are necessary for a full understanding of the nature of an atomic burst and the particular destructive features of atomic weapons.

This Guide is intended as an aid to instructors and students of military academies, to instructors of advanced officer training courses and instructors of military schools, and also as guidance for those pursuing scientific research in the fields of atomic weapons and the development of means and methods of anti-atomic protection.

Comments on the Guide and suggestions for its improvement should be sent to the address of the Sixth Directorate of the Ministry of Defense.

Order No. 2187

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Table of Contents

Part I

The Combat Characteristics of Atomic Weapons

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Part II

METHODS AND MEANS OF ANTIATOMIC PROTECTION

Chapter VIII

The Fundamentals of Antiatomic Troop Protection

Antiatomic protection of troops is one of the most important types of combat security. The purpose of antiatomic protection is to prevent troop casualties from atomic weapons and to preserve combat effectiveness under conditions of an enemy atomic attack.

Antiatomic protection of troops includes:

--disclosure of enemy preparation for atomic attack;

--breaking up the atomic attack;

--warning the troops of the danger of atomic attack;

--troop dispersal and camouflage;

--engineer preparation of zones, positions, troop disposition areas and the use of the protective qualities of the terrain;

--carrying out radiation reconnaissance;

--adoption of measures for the protection of personnel from contamination by radioactive materials;

--elimination of the aftereffects of an atomic attack.

Exposure of enemy preparations for atomic attack is achieved by conducting persistent and continuous reconnaissance. Reconnaissance systematically obtains information which allows the determination of:

--the presence, composition and deployment of large units, and units designated for the employment of atomic weapons, their radio communications system and call signs;

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--the disposition of bases and depots with atomic weapons, the quantity of atomic munitions stored in them, as well as the organization of security, antiaircraft and ground defense of the bases and depots;

--structural characteristics and tactical-technical information for the various types of atomic weapons and their means of employment;

--tactical methods and the system of combat and special security used by the enemy during an atomic attack;

--time, place and the nature of the atomic attack under preparation by the enemy;

--time of take-off, altitude and direction of flight of atomic weapon delivery aircraft, as well as preparation for the employment of atomic weapons from launching sites and firing positions.

The major role, in the procurement of most of the necessary information on the means of atomic attack and the intentions of the enemy for the employment of atomic weapons, belongs to the agent, radio and aerial intelligence. The intelligence forces and means of units and large units are used for these ends.

Disruption of an atomic attack is the most effective measure of ensuring antiatomic protection of troops. Disruption of an atomic attack is achieved by:

--interdiction of the operation of the enemy's reconnaissance aviation and maintenance of supremacy of our aviation in the air, on the main axes;

--disruption of the enemy's transportation, thus concentrating his means of atomic attack;

--destroying atomic munitions and putting out of action the special equipment used for atomic attack at bases, depots, airfields, launching pads and firing positions;

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--interdiction of preparations of airfields, launching pads and firing positions intended for the employment of atomic weapons, or destruction and mining of them if already prepared;

--destroying atomic weapon delivery aircraft and cruise missiles at airfields, launching pads and in the air;

--destroying missiles on launching pads and atomic artillery pieces in disposition areas or firing positions;

--destroying radio-navigation, radio, radar and other stations, which support flights of delivery aircraft, rocket launchings and radio-guided pilotless means, or jamming their operation.

For the destruction of the enemy's forces and means of atomic attack, aircraft, field and antiaircraft artillery, parachute troops, reconnaissance groups and partisans are used.

Warning troops of the danger of atomic attack has the goal of ensuring the prompt adoption of protective measures against the effects of atomic weapons and prompt preparations for the repulse of the enemy's atomic attack. Warning is issued on receipt of information indicating enemy preparations for the use of atomic weapons.

Commanders of large units warn troops of the danger of atomic attack on the basis of instructions from higher headquarters or of intelligence information of an immediate threat of enemy atomic attack.

The warning of subunits is carried out on order of the unit (subunit) commanding officers on the basis of orders from senior commanding officers or in accordance with an agreed signal.

For warning of the dangers of atomic attack, a single signal, which is suitable for rapid transmission to the troops, is assigned for all troops of a front. The agreed signal is immediately given to all personnel.

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The warning signal for chemical attack is used to forewarn troops of the presence of radioactive contamination.

Troop dispersal and camouflage are carried out under any conditions of combat activity.

Troop dispersal is not accomplished at the expense of control and coordination of the separate elements of a combat formation, or of their ability to effectively fulfil their assigned tasks.

Dispersal is achieved by:

--assigning wider zones as sectors of large units and units and organizing their combat formations so as to preclude the possibility of the simultaneous destruction of several subunits (batalon, divizion) by a single atomic burst;

--assignment to troops of areas, for rear area units and installations, the dimensions of which will ensure the required degree of dispersal;

--separation (from possible targets of atomic attack) of troop disposition areas, rear area units and installations and also routes of troop movement;

--selection of routes of movement along adjacent roads, to preclude the simultaneous destruction of troops by a single atomic burst;

--adoption of measures to preclude the concentration of troops in defiles, stream crossings and assembly areas.

Camouflage has the purpose of concealing troop groupings from the enemy, in order to deceive him concerning our forces and means, operations and intentions and thereby make it difficult to select targets for atomic attack.

Engineer terrain preparation provides the most dependable immediate troop protection against the destructive effects of atomic weapons.

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All defense structures, including structures of the simplest type, to some extent, protect troops from the destructive effects of atomic weapons.

The nature of engineer preparation in each actual case depends on the conditions of the combat situation and the terrain and also on the available time, forces and means.

The basis of engineer preparation of positions (defense zones, departure areas for attack, etc.) under conditions of atomic attack is a system of trenches and connecting trenches, as well as a widespread network of shelters for personnel, weapons, equipment and supplies.

Troop disposition areas, under conditions of possible enemy atomic attack, are prepared with the simplest personnel shelters. For the protection of weapons, equipment and supplies, natural terrain features are exploited, or shelters of various types are set up.

When disposed in populated areas, sturdy basements of buildings, local shelters, and underground structures are used as shelters.

During engineer preparation of the terrain, maximum use is made of its protective qualities. The use of large tracts of forests and various natural and artificial shelters (ravines, depressions, gullies, excavations, caves, underground excavations, etc.) for locating troops may, to a significant degree, decrease the zone of destruction for personnel, weapons, equipment, and supplies and also reduce the extent and time of engineer preparation.

A brief description of engineer protective means is presented in Chapter IX.

Radiation reconnaissance is organized for the purpose of prompt detection and determination of the nature and degree of radioactive contamination in the areas of troop operations.

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Radiation reconnaissance is organized by the commanding officers and staffs of units and large units of all arms of troops, and also by rear area units, under all conditions of combat activity. Direct control of radiation reconnaissance is exercised by the chiefs of the chemical service of the large units (units).

Radiation reconnaissance is conducted with dosimetric instruments by subunits of chemical troops and also by specially trained enlisted men and NCOs of the subunits of other arms of troops.

A description of the means and methods of radiation reconnaissance is given in Chapter X.

Protection against contamination by radioactive materials is ensured by skillful and prompt use of individual means of antichemical protection and defense installations; by strict observance of the established rules for conduct on contaminated terrain and by limiting the time troops remain in a contaminated area, and also by organizing dosimetric radiation control and by carrying out sanitary processing and decontamination.

In undertaking these or any measures for protection of personnel from casualties from radioactive material, the combat mission, the data of radiation reconnaissance and dosimetric control, and also the meteorological conditions, are taken into consideration.

Elimination of the aftereffects of an atomic attack has the purpose of restoring, in a short period, the disrupted combat readiness of the troops, and creating the conditions for the successful fulfilment of their assigned missions.

Elimination of the aftereffects of an atomic burst includes:

--restoration of troop combat readiness;

--rescue work and medical-evacuation measures;

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--extinguishing fires;

--clearing and restoring roads for maneuver, supply and evacuation;

--conducting sanitary processing and decontamination;

--dosimetric control.

The work of eliminating the aftereffects of an atomic attack is carried out by the forces of the subunits exposed to the atomic attack and by subunits (units) sent out for this purpose on orders of the commanders of units and large units.

Sanitary processing of personnel (veterinary processing of animals) and decontamination of uniforms, weapons, materiel, equipment and rations, and, in unavoidable cases, of terrain and water, are confined to the removal of radioactive material which has fallen on personnel, animals, various objectives; into water and rations; and also on separate sectors of the terrain.

Sanitary processing and decontamination are organized on orders of the commanders of large units, units and subunits, but not at the expense of carrying out the combat missions.

The chiefs of the chemical service of large units (units) are the direct organizers of the work of sanitary processing of personnel and the decontamination of weapons, materiel and equipment of troops; for the decontamination of supplies, materiel and equipment in depots or received from troops--the appropriate chiefs of services and departments of supply of arms of troops; for the sanitary processing of the wounded and sick, decontamination of their clothing, equipment and footwear -- the chiefs of medical installations; for the decontamination of water and separate sectors of the terrain--unit engineers.

The job of sanitary processing and decontamination in subunits is organized by the commanding officers of subunits.

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Dosimetric control is carried out for the purpose of determining the irradiation dose of personnel and the degree of contamination of personnel, weapons, materiel, equipment, rations, forage and water. In conformity with this, dosimetric control is subdivided into irradiation control and control of radioactive contamination. It is carried out by the resources of the subunit's chemical protection, by chemical instructors, and by specially trained enlisted men and NCOs provided with dosimetric instruments.

On the basis of radiation control data, measures are taken to prevent injury to personnel from radioactive radiation, and on the basis of radioactive contamination control data, the necessity for carrying out complete sanitary treatment of personnel and decontamination of weapons and equipment is determined.

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